

## REMARKS

The applicants have studied the Election Requirement dated December 3, 2002, and have made amendments to the claims. It is submitted that the application, as amended, is in condition for allowance. By virtue of this amendment, claim 73 has been amended, and claims 74-95 have been added; thus, claims 56-95 are pending. Consideration and allowance of all the pending claims in view of the above amendments and the following remarks are respectfully requested.

In the Office Action Summary, the Examiner indicated that claims 1-55 were pending in this application. However, the applicants respectfully point out that a Preliminary Amendment was filed on January 31, 2002 with this divisional application, which cancelled claims 1-55 and added new claims 56-73. A copy of the postcard indicating receipt of the divisional application and accompanying Preliminary Amendment on January 31, 2002 by the Patent Office is enclosed. A copy of the Preliminary Amendment previously filed on January 31, 2002 is also enclosed for the Examiner's reference. Claims 74-95 have been added by this amendment; accordingly, the applicants submit that claims 56-95 are pending in this application.

Claim 73 has been amended to correct minor grammatical errors. Therefore, claim 73 is not being amended for reasons of patentability.

For clarification, the applicants elect the invention directed to an infusion system including a bolus estimator for further prosecution on the merits. However, the applicants respectfully submit that pending claims 56-95 are all directed to this invention. Accordingly, withdrawal of the election requirement is respectfully requested.

Claims 74-95 have been added by this amendment. No new matter has been added. Support for the new claims can be found on pages 9, 10, 12-19, and 25-38 of the present application. The applicants respectfully submit that new claims 74-95 are also directed to an infusion system including a bolus estimator, and thus, should be included in the election for further prosecution on the merits. If the requested inclusion is not allowed by the Examiner, the

applicants recognize that, upon the allowance of a generic claim, the applicants will be entitled to consideration of claims to additional species, which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR § 1.141.

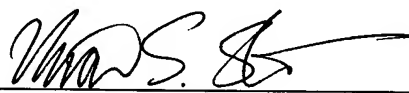
In view of the foregoing, it is respectfully submitted that the application and all of the elected claims are in condition for allowance. Examination and consideration of the application, as amended, are requested.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE.**"

If, for any reason, the Examiner finds that the application is other than in condition for allowance and believes that a telephone interview would advance the prosecution of the application, the Examiner is invited to call the undersigned attorney at (818) 576-5291.

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**In the Claims:**

Claim 73 has been amended, and new claims 74-95 have been added, as follows:

73. (Amended) A method according to claim 65, further comprising the step of using a duration factor to determine a value of how long a previously infused amount of liquid will remain active in the body, and using the determined value [is] to adjust the amount of the fluid to be infused.

74. (New) An external infusion system for infusion of a fluid into a body, the external infusion system comprising:

interfacing means providing a programmer for interfacing with externally supplied values to estimate an amount of fluid to be infused based upon an estimate of a material to be ingested by the body, the programmer including:

at least one processor to utilize the externally supplied values;

a housing adapted to contain the at least one processor;

at least one display including at least one touch screen element to interface with at least one of the at least one processor;

at least one button to interface with at least one of the at least one processor;

at least one audio indication device coupled to the at least one processor to provide an audio indication; and

at least one portable power supply contained within the housing of the programmer to provide power to at least one of the at least one processor;

inputting means for inputting the externally supplied values into the programmer using either the at least one button or the at least one touch screen element; and

calculating means for calculating an estimate of the amount of fluid to be infused into the body based upon the externally supplied values and the estimate of the material to be ingested by the body.

75. (New) An external infusion system according to claim 74, wherein the calculating means is further used for calculating a correction bolus based upon a current characteristic value and a target characteristic value.

76. (New) An external infusion system according to claim 75, wherein the calculating means is further used with a liquid sensitivity to calculate the correction bolus.

77. (New) An external infusion system according to claim 76, wherein the fluid to be infused is insulin, and the material to be ingested are carbohydrates.

78. (New) An external infusion system according to claim 74, wherein the fluid to be infused is insulin, and the material to be ingested are carbohydrates.

79. (New) An external infusion system according to claim 74, further comprising infusing means for infusing the estimate of the amount of fluid into the body.

80. (New) An external infusion system according to claim 79, further comprising lockout means for preventing calculation of the estimate of the amount of fluid to be infused for a predetermined period of time after infusion of the amount of fluid into the body by the infusing means.

81. (New) An external infusion system according to claim 74, wherein the externally supplied values are codes representing a carbohydrate value of specific foods.

82. (New) An external infusion system according to claim 74, wherein the externally supplied values are codes representing a carbohydrate value of specific meals.

83. (New) An external infusion system according to claim 74, wherein the calculating means is further used with a duration factor for determining a duration of how long a previously

infused amount of fluid will remain active in the body, and the determined duration is used to adjust the estimate of the amount of fluid to be infused.

84. (New) In an infusion system comprising an infusion device for infusing a fluid into a body of a user and a programmer including at least one processor, a housing adapted to contain the at least one processor, at least one display to interface with at least one of the at least one processor, at least one data input device to interface with at least one of the at least one processor, and at least one portable power supply contained within the housing to provide power to at least one of the at least one processor, a method of estimating a bolus amount of fluid to be infused into the body, the method comprising the steps of:

inputting externally supplied values into the programmer to estimate the bolus amount of fluid to be infused based upon an estimate of a material to be ingested by the body, wherein the externally supplied values are input using the at least one data input device;

calculating an estimate of the bolus amount of fluid to be infused into the body based upon the externally supplied values and the estimate of the material to be ingested by the body; and

providing the estimate of the bolus amount of fluid to the user for use with the infusion device.

85. (New) A method according to claim 84, wherein the at least one data input device is at least one touch screen element to interface with at least one of the at least one processor.

86. (New) A method according to claim 84, wherein the at least one data input device is at least one button to interface with at least one of the at least one processor.

87. (New) A method according to claim 84, further comprising the step of calculating a correction bolus based upon a current characteristic value and a target characteristic value.

88. (New) A method according to claim 87, wherein the correction bolus is calculated further based upon a liquid sensitivity.

89. (New) A method according to claim 88, wherein the fluid to be infused is insulin, and the material to be ingested are carbohydrates.

90. (New) A method according to claim 84, wherein the fluid to be infused is insulin, and the material to be ingested are carbohydrates.

91. (New) A method according to claim 84, further comprising the step of programming the infusion device to infuse the estimate of the bolus amount of fluid into the body.

92. (New) A method according to claim 91, further comprising the step of providing a lockout to prevent calculation of the estimate of the bolus amount of fluid to be infused for a predetermined period of time after infusion of the bolus amount of fluid into the body by the infusion device.

93. (New) A method according to claim 84, wherein the externally supplied values are codes representing a carbohydrate value of specific foods.

94. (New) A method according to claim 84, wherein the externally supplied values are codes representing a carbohydrate value of specific meals.

95. (New) A method according to claim 84, further comprising the steps of:  
determining a duration of how long a previously infused amount of liquid will remain active in the body based upon a duration factor; and  
adjusting the estimate of the bolus amount of fluid to be infused based upon the determined duration.